

REMARKS

Claims 1-37 are pending. On page 2 of the Office Action, the Examiner indicated that the previous objections to the specification have not been withdrawn. According to the Examiner, the specification currently includes errors that "make the specification harder to read than necessary." Applicants have amended the specification to address the Examiner's objections. Withdrawal of the objection is respectfully requested.

On page 3 of the Office Action, claims 1, 7, 13, 14-16, and 37 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 5,721,842 (Beasley et al.) in view of U.S. Pat. No. 5,159,632 (Crandall).

As admitted by the Examiner, Beasley does not disclose the above-identified feature of the present invention. The Examiner alleged on page 4, however, that the feature is disclosed by public key cryptography. According to the Examiner, public key cryptography is further disclosed by Crandall at column 1, lines 32-51.

In the above-identified section, Crandall describes public key encryption. In public key encryption, a deciphering key cannot be determined merely by having the enciphering key, without a lengthy computation. Public key encryption utilizes a secure key generator to provide a key output. The key output is provided along with a ciphertext message to a transmitter receiver, which outputs the key output and ciphertext message on an insecure channel to the receiver's transmitter receiver. See Crandall, column 1, lines 32-38 and column 1, line 66 – column 2, lines 1-7.

In the present invention, as defined by the independent claims, a key code entered by a terminal's user is received by a KB microcomputer. The KB microcomputer that has received the key code obtains an identification (ID) number corresponding to the connector KB coupled to the particular KB microcomputer. For example, when the particular terminal has been installed on the connector KB-2, the KB microcomputer obtains the identification (ID) number 2 of the KB microcomputer 3B. See Specification, page 24, lines 17-22. The identifier is then utilized to encipher the received key code.

Applicants respectfully submit that claims 1, 7, 13, and 37 are patentable over Beasley in view of Crandall, as neither Beasley nor Crandall, taken alone or in combination, teaches the feature of the present invention identified by the claim language, "said identification processing including utilizing an identifier corresponding to a connector through which a terminal is

connected to encipher a received key code.”

The description of a typical public key cryptographic system in Crandall simply describes the components and general operation of such a system. For example, Crandall states that a sender sends a plaintext message encrypted into a ciphertext message C to a receiver to recreate the plaintext message. See Crandall, column 1, lines 56-59. In particular, a cryptographic device provides the ciphertext message C, which is provided to a transmitter receiver, along with a key output. Crandall does not offer any specific details regarding how enciphering occurs, much less utilizing an identifier corresponding to a connection to encipher a received key code.

Moreover, Crandall clearly states that the key is nothing more than a random number generated by a random number generator. See Crandall, column 2, lines 33-36. Therefore, contrary to the Examiner's assertion that the key is an identifier and corresponds to the identity of the sender from which a message is sent, the key is simply a random number and is not an identifier corresponding to a connection.

Therefore, claims 1, 7, 13, and 37 are patentable over the references, as neither Beasley nor Crandall, taken alone or in combination, teaches or suggests the above-identified feature of the claims. As dependent claims 14-16 depend from independent claim 13, the dependent claims 14-16 are patentable over the references for at least the reasons presented above for the independent claims.

On page 10 of the Office Action, claims 2, 8 and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,721,842 (Beasley) in view of U.S. Patent No. 5,159,632 (Crandall) and further in view of U.S. Patent No. 4,484,025 (Ostermann et al.).

As previously stated, the Examiner admits that Beasley does not teach the feature of the present invention identified by the language, “said identification processing including utilizing an identifier corresponding to a connector through which a terminal is connected to encipher a received key code.” As explained above, Crandall also does not teach the feature.

Ostermann does not teach or suggest the feature. Ostermann is directed to a system and method for transmitting enciphered data between first and second terminals over a data transmission channel. Although Ostermann relates generally to transmitting enciphered data, Osterman does not disclose or suggest information pertaining to “identification processing including utilizing an identifier corresponding to a connector through which a terminal is connected to encipher a received key code.” In fact, Osterman does not appear to provide any details regarding how enciphering is performed, other than mentioning that a “cipher key” is

used.

Therefore, neither Beasley, Ostermann, nor Crandall, taken alone or in combination, teaches or suggests the feature of the present invention, as identified by the language of claims 2 and 8 via independent claims 1 and 7, respectively, and as identified by independent claim 17.

Claims 3, 9 and 21-24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Beasley in view of Crandall and Ostermann and further in view of Nelson, Jr.

Nelson does not teach or suggest, "identification processing including utilizing an identifier corresponding to a connector through which a terminal is connected to encipher a received key code." According to Nelson, a real time digital encryption system is disclosed. Although Nelson indicates that the cryptographic system uses keys in conjunction with a plaintext signal, Nelson does not provide or suggest any information regarding a security unit for performing "identification processing including utilizing an identifier corresponding to a connector through which a terminal is connected to encipher a received key code."

Therefore, dependent claims 3 and 9 via claims 1 and 7, respectively, are patentable over all of the references, as none of the references, taken alone or in combination, teach or suggest the feature of the present invention identified by the above-quoted language of the claims. Claims 21-24 are patentable over the references for at least the reasons presented above for claim 1, for example.

Claims 4, 10, and 25-28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Beasley in view of Crandall and further in view of Wilder.

Wilder refers to a "KVM switching unit" that routes keyboard and mouse data, etc. to a computer. No information is provided regarding a security unit that executes identification processing of data, as in the present invention. As dependent claims 4 and 10 depend from independent claims 1 and 7, respectively, these claims are patentable over Wilder for at least the reason offered above with respect to their independent claims, in addition to other reasons. Claims 25-28 are patentable over the references for at least the reasons presented above for claim 1.

Therefore, claims 4, 10, and 25-28 are patentable over the references, as none of the references, taken alone or in combination, teach or suggest the above-identified feature of the claims.

Claims 5-6, 11-12 and 29-36 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Beasley in view of Crandall and further in view of Onsen.

Onsen does not teach or suggest a security unit for performing "identification processing including utilizing an identifier corresponding to a connector through which a terminal is connected to encipher a received key code." Onsen is directed to an information processing apparatus, a connection status displaying method, and an information processing system in which the connection status of a plurality of connected devices can be confirmed. Onsen is completely silent as to a security unit for performing identification processing as identified by the proposed new language of the claims.

Therefore, claims 5-6, 11-12, and 29-36 are patentable over the references, as none of the references, taken alone or in combination, teach or suggest the identified feature of the independent claims and dependent claims via their respective independent claims.

If there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.


Respectfully submitted,

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10/6/05

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